

Specific Hospital Improvements by County

Hillsborough County

Certificate of Need

Hillsborough County is home to three of the ten acute care facilities with projects selected for this study. Three of the five acute care hospitals located in the county (Catholic Medical Center, St. Joseph's Hospital, Southern New Hampshire Medical Center) have undergone or will undergo major renovation or new construction between 2004 and 2009.

Catholic Medical Center, Manchester (CMC)

At the time this expansion began in 2003, the projected cost was \$19.6 million. However, CMC applied for a *Change of Scope*¹⁸ in 2006, increasing the total project cost to \$32.5 million.

The original application included the construction of a four-story addition, including renovation of

- the emergency department,
- intensive care unit,
- diagnostic imaging department, and
- cardiac support services.

These plans included 14,800 square feet of shell space to be available for future development.

The *Change of Scope* expressed the need to renovate the hospital's current 10 operating rooms, which average 430 square feet each. According to these revised documents, new equipment requires the average operating room size be a minimum of 600 square feet. Instead of renovating the existing operating space it was determined to be more efficient, safe, and cost effective to build 10 new, modern operating rooms in the 14,800 square foot "shell" space, planned in the original application. No determination of future use has been made for the vacated space from the existing 10 operating rooms.

St. Joseph's Hospital, Nashua Area

There are a couple of different projects being done here, the largest of which began in 2004 and has an approved total project cost of \$31.1 million.

This project included:

- the construction of a two-story 74,400 square foot ambulatory care facility,
- renovation of the hospital's first floor,
- building a parking deck.

Ninety-five percent of this project had been completed by April 2006, accounting for \$18.4 million.

¹⁸ Change of Scope is part of the Certificate of Need process. This is an amendment to the original Certificate of Need including additional costs and changes to construction projects and/or equipment.

In the second project, St. Joseph's expanded and relocated its "Surgi-Center" in order to meet the high demand for ambulatory surgery services. The final cost of this second project was \$3.5 million and it was completed in February 2006. The CON stressed that the reasoning for both of these expansions was to better serve the growing and aging population of Greater Nashua and to provide a state-of-the-art facility.

Additionally, St. Joseph's Hospital applied for a fixed MRI unit in their diagnostic imaging department with an approved cost of \$2.7 million. The planned completion date for this project was stated as December 2006. Per the CON, the purchase of a fixed MRI to replace the existing mobile MRI unit is to meet the increased demand for MRI services.

Southern New Hampshire Medical Center, Nashua

The planned expansion and renovation at this facility is expected to begin in summer 2007 and be completed by summer 2009. The total project cost is estimated at \$27.6 million. According to the CON application, the hospital is faced with an aging facility that was not designed to meet current standards in medical care. This project addresses the need for expanded space to accommodate current standards for service delivery and meet the requirement of patient privacy under HIPAA.

Expansions and renovations planned include:

- endoscopic services,
- surgical intensive care services,
- laboratory services,
- neonatal intensive care unit,
- labor delivery and recovery unit,
- and kitchen facility.

Total input for Hillsborough County

From the project details provided in the CONs for facilities in Hillsborough County, the costs were assigned according to the industries they would effect.

- Total construction expenses: \$75.2 million.
- Domestic trade flow patterns from the econometric model indicate that 16.6 percent of construction in Hillsborough County gets distributed to firms outside the county.¹⁹
 - That means that for every \$100 spent on construction in that county only \$83.40 actually stays in the county.

According to those proportions, the total construction cost that was used in the model was \$62.8 million over the period 2004 to 2009. This was the proportion of construction distributed to firms in the county.

¹⁹ REMI Domestic Trade Flows is a market share distribution matrix in the econometric model.

Hospital Construction Projects in New Hampshire

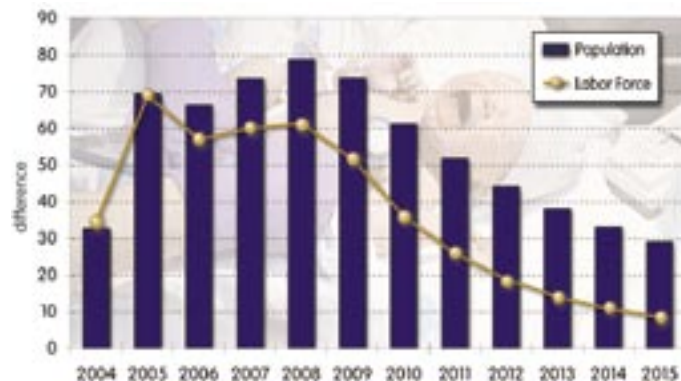
Additionally, \$8.8 million was used for *Medical equipment manufacturing* from 2004 to 2009 and \$2.7 million as *Navigational, measuring, electromedical, and control instruments manufacturing* in 2006. These purchases did not create jobs in the county and contributed little to the local economy.

Impact of Hospital expansion on Hillsborough County

Since the majority of project expenses are for renovations and construction purposes, this is where the most significant economic changes are experienced. The labor force in the county did not experience a large shift during the first year of the projects, increasing by only 34 people. That increase peaked at 69 in 2005 then gradually fell off. Over the next four years, the levels ranged between 60 and 51.

Hillsborough County has typically had the fastest growing population in the state, highly affected by its proximity to the Massachusetts boarder. Even with this continued population expansion, the level is boosted with the availability of additional construction jobs at medical facilities. The first year, 2004, showed an additional increase of 33 people. The next five years attract around 70 more people each year. The increases gradually taper off, but remain in the range of 30 people above originally projected levels by the end of the projected period in 2015.

Hillsborough County Difference in Labor Force and Population



Hillsborough County Difference in Employment

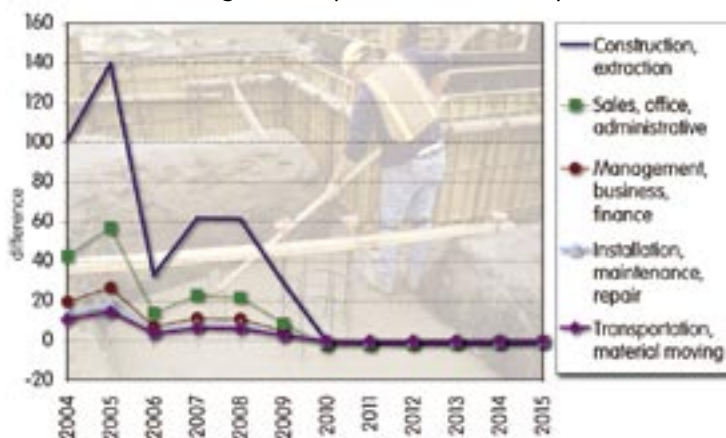


Two of every five added jobs are *construction and extraction* occupations, which grew by 100 and 140 jobs in the first two years. As is the nature of the beast (construction being the beast), while employment levels rise initially, they decline as the projects get closer to completion. The same holds true for three occupational groups that support construction activity: *sales, office and administrative* occupations, *installation, maintenance and repair* occupations, and *transportation and material moving* occupations.

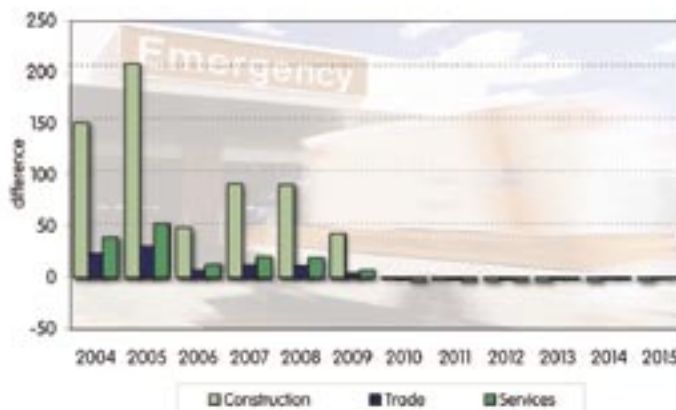
Approximately 68 percent of the jobs created are in the *Construction* industry sector with most of the remaining new jobs being in *Services* and *Trade*. Some of the construction costs support jobs in *Professional and technical services*. The rest of the jobs are created from the secondary effect of increased consumption in *Accommodation and food services* and *Retail trade*.

The improvements to these hospitals will contribute over \$10.3 million to the county's gross regional product (GRP) in 2004 and \$14.3 million in 2005. Personal income in the county also benefited from the new projects, growing by almost \$8 million in 2004 and spiking the second year by more than \$11 million. Personal income levels taper off over the next four years, with increases ranging between \$6.4 and \$3.5 million. The last years of the projected impact period show that personal income returns close to its originally forecasted levels.

Hillsborough County Difference in Occupations



Hillsborough County Difference in Industries



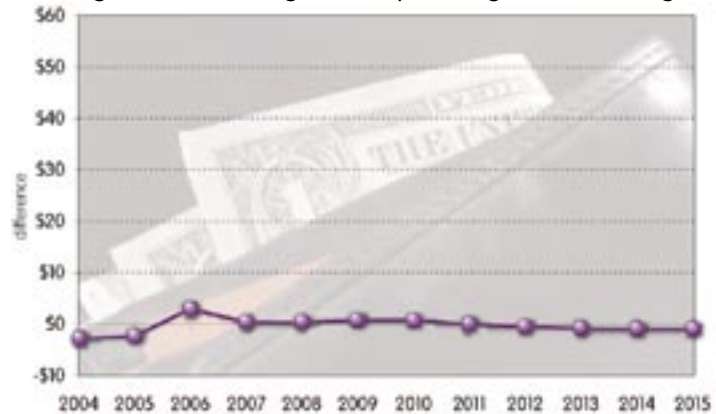
Hillsborough County Difference in Gross Regional Product and Personal Income



Hospital Construction Projects in New Hampshire

The GRP aggregate value is the result of the change in wages per worker. Average annual wages experienced only minimal pressure as the project began. The extra workers, drawn in by the projects, forced wages down, although the change to wages was negligible. In the first two years of the project, average annual wages dropped slightly by roughly \$2 and \$3 dollars. The third year balanced out, barely increasing by \$3 before dropping the next couple years to less than \$0.50. By the end of the study period average annual wages in the county were roughly \$1 off of original levels. What this shows is that as the economy grows, along with the population, the average annual wage will stay at about the same level.

Change in Hillsborough County Average Annual Wages



Grafton County

Certificate of Need

Grafton County has five acute care facilities. Two of these are among the ten acute care projects that met the criteria for this study. Those hospitals are Speare Memorial Hospital in Plymouth and Mary Hitchcock Hospital in Lebanon.

Speare Memorial Hospital, Plymouth

The narrative in this application describes new construction and renovations totaling 75,000 square feet. This includes an attached medical office building. According to the Certificate of Need, the reason for the project is to correct overcrowding because there is not enough room to handle current and projected patient demand volumes, compounding patient confidentiality concerns. Public accessibility is also very difficult given the current layout. Limited parking further aggravates this lack of access. The intended \$15 million improvement includes purchasing surrounding properties, redesigning entrances for patient friendly access, and, improving staff efficiencies. Expansions and renovations account for two-thirds of the overall project cost (about \$10 million).

Two expansions will take place:

- a clinical addition of 12,000 square feet, and
- a one-story addition off the northern side of the main hospital of 13,668 square feet, including a redesign to improve ease of patient traffic and adequate storage space.

Surgical suite and emergency department expansions will accommodate the increase in patient volume from population growth and seasonal tourists. Additional space increases will also impact the central sterile supply, radiology, pharmacy, cardiopulmonary, kitchen and nutrition, and administration departments.

Mary Hitchcock Memorial Hospital, Lebanon

One of the largest acute care facilities in the state, this hospital had the highest value Certificate of Need request. Their original CON was for \$165 million, with construction starting in February 2002 and completion by January 2006.

These project costs covered several expansions:

- diagnostic and therapeutic facilities,
- addition of physician offices,
- addition of ambulatory exam space,
- patient parking garage,
- additional surface parking for staff.

By the time the implementation report was filed for project expenses incurred through March 2005, a *Change of Scope* was included for another \$9,985,515 covering the addition of CATH/EP²⁰ services. Additionally, another CON was submitted to cover the costs of fixed PET/CT²¹ equipment for \$3.1

²⁰ Th□ service capabilities.

²¹ Tomography scanners are vital in detecting cancers and other ailments.

Hospital Construction Projects in New Hampshire

million. These services had previously been provided by a mobile unit that was far removed from the radiology department.

Total input for Grafton County

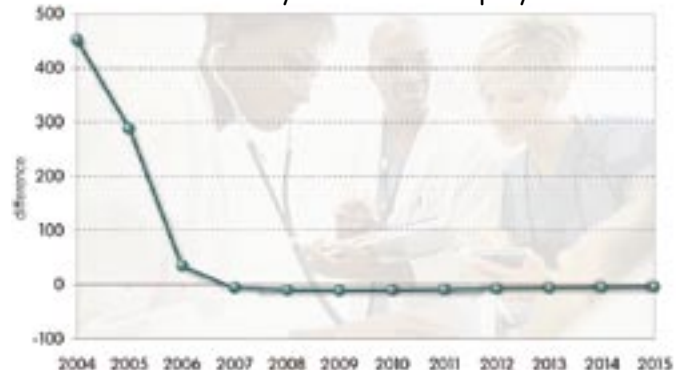
Since this study includes construction projects completed and planned from 2004 forward, work and costs associated with Mary Hitchcock's CON request that were completed prior to the end of 2003 are not included in this analysis. Specific costs associated with remaining construction projects in the combined CONs came to \$65.0 million. As with almost all projects, not all construction monies spent stay within the county. Grafton County domestic trade patterns show that approximately \$63 of every \$100 of construction expenditures paid stay in the county. After this adjustment, \$40.56 million of projected construction money was used in the model as the share contributed to the county's economy. Equipment costs – \$15.9 million for *Medical equipment manufacturing* from 2004 forward, and \$2.7 million for *Navigational, measuring, electromedical, and control instruments manufacturing* were assigned to final demand. This \$18.6 million did little to add to the local economy in Grafton County and did not necessarily generate jobs in the county.

Impact of Hospital expansion on Grafton County

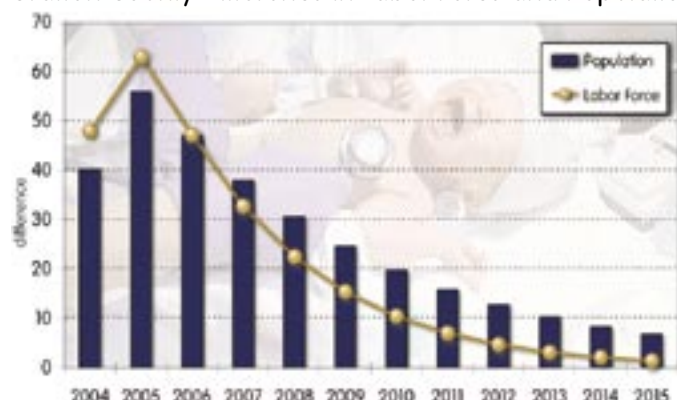
Because a large portion of the project for Mary Hitchcock Memorial Hospital had already been completed before the time frame of this study, most of the changes for this county are evident in only the first couple of years. However, in light of that, total employment levels in 2004 and 2005 showed an increase of 453 and 288 workers respectively. After that point the level of change declines to barely 34 workers before the increases drop off entirely.

The population and labor force in the county are closely related in their response to the projects. Labor force increased a little faster than population during the first two years, 48 and 63 people in the labor force compared to 40 and 56 in population. By the third year the change is essentially the same for both at 47 people, but then as the projects reach completion, the labor force levels fall off faster than population.

Grafton County Difference in Employment



Grafton County Difference in Labor Force and Population

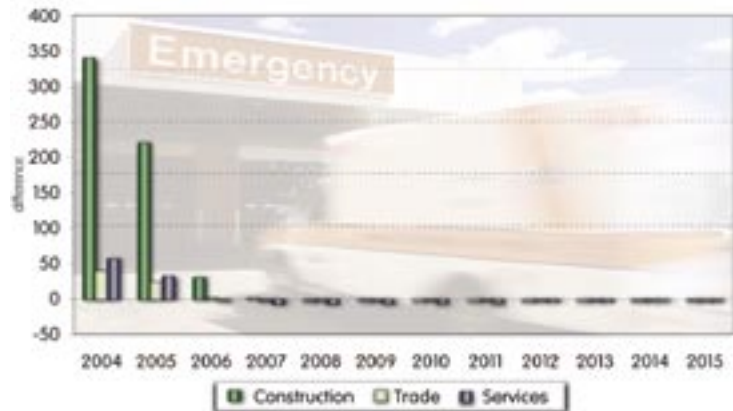


Among the industries most affected by the projects, *Construction* made up the lions share with over three-quarters of additional jobs created in the first years. During the first two years, *Services* and *Trade* employment levels were also elevated. By the third year, the employment level in *Construction* was the only industry sector that had not returned to its original level or below.

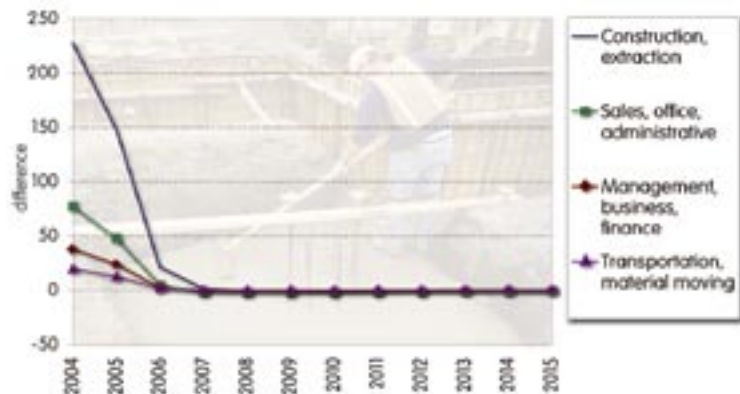
The occupations related to the industries showed the most change in the initial years. *Construction and extraction* occupations made up more than half of those additional jobs. Related occupations that either support or spring up from excess demand were seen in the increases in *sales, office and administrative* occupations. To a lesser degree, *management, business, and finance* occupations and *transportation and material moving* occupations also experienced employment level increases in the initial years, only to have the increased levels subside with the completion of the projects.

The projects at the medical facilities contribute \$14.6 million to the gross regional product (GRP) of the county in the first year of the study. Because the projects are closer to the completion stage this tapers off quickly with the passing of the second year, reducing the additional contributions to \$9.2 million. After the third year, the GRP of the county falls below what was originally expected for the county. Personal income

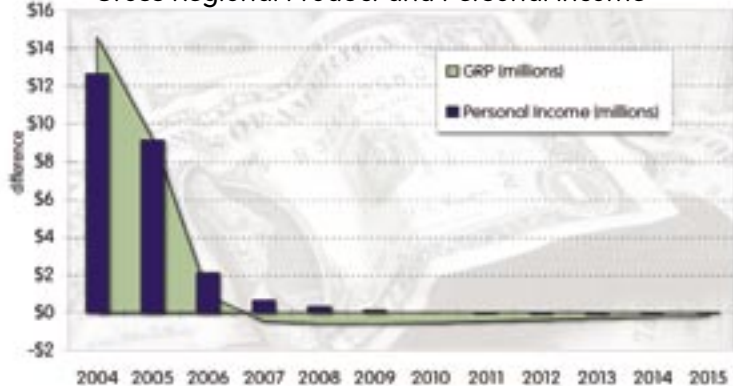
Grafton County Difference in Industries



Grafton County Difference in Occupations



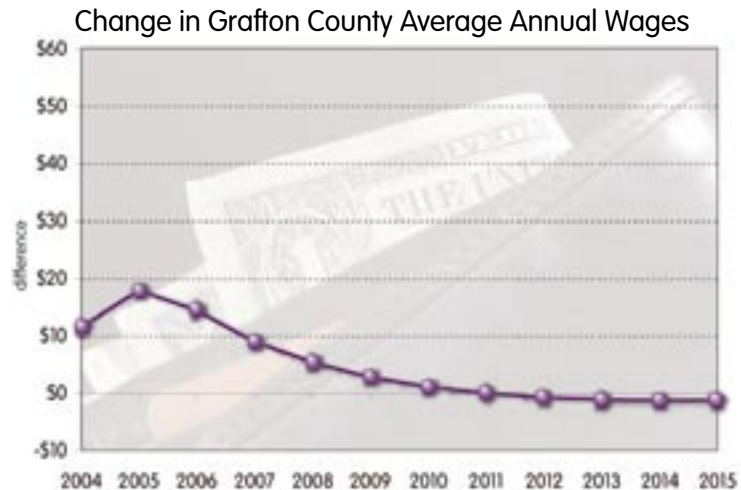
Grafton County Difference in Gross Regional Product and Personal Income



Hospital Construction Projects in New Hampshire

in the county experiences the same pattern of change, spiking initially and declining to the original levels, only the personal income doesn't go below originally expected levels until the projected eighth year of the study.

The average annual wage can be the per capita measurement of the GRP. Average annual wages in the county followed the same trend. The first year included in the study had a slight increase of \$11.54, that did peak the next year just shy of \$18.00. A gradual reversal took place as wages slowly returned to their normal levels during the next five years.



Merrimack County

Certificate of Need

Only one of the acute care hospitals in Merrimack County fit the criteria of this study.

Concord Hospital

This hospital began an extensive reconstruction project that started in August 2005 and is scheduled to continue into summer 2008.

Their initial Certificate of Need, submitted for \$52.6 million, included construction of a four-story addition to expand:

- emergency department,
- intensive care unit,
- operating room complex (including central sterile supply), and
- add ten medical surgical beds in the new east wing, as well as
- ten observation beds adjacent to the emergency department.

To better address infection control and privacy concerns, and reduce chance of medical errors, the renovations will include converting semi-private rooms to private rooms.

A *Change of Scope* was submitted to add another \$5.1 million to satisfy the need for additional private rooms. The hospital administration expects these additional rooms can be completed within the timeframe of the original CON request.

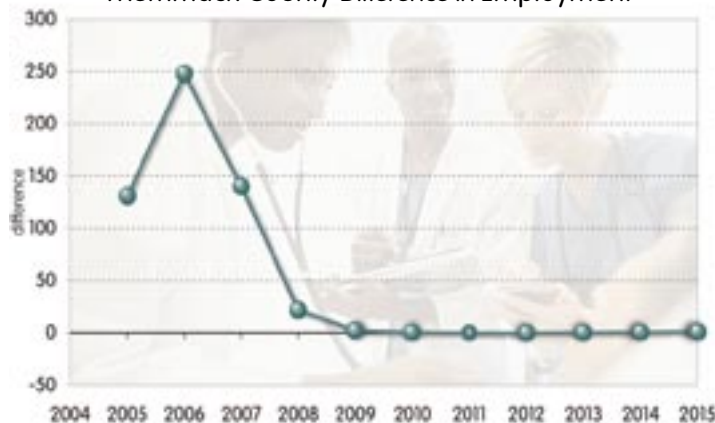
Total input for Merrimack County

The total CON application for Merrimack County had a price tag of \$57.7 million. The construction expenses listed came to \$53.1 million. Merrimack County typically experiences just shy of 27 percent of construction expenses going to firms and jobs from outside the county, so the construction amount used in the study was adjusted to \$38.8 million. Another \$4.6 million is assigned to final purchases for equipment which would not typically generate additional jobs in the local economy.

Impact of Hospital expansion on Merrimack County

Much of Merrimack County's construction costs goes to companies outside the county (per the domestic trade patterns), so there is a smaller effect on total employment. Also this project didn't start until a year into this study (2005), deferring any changes an additional year. During the initial year of the project, 2005,

Merrimack County Difference in Employment

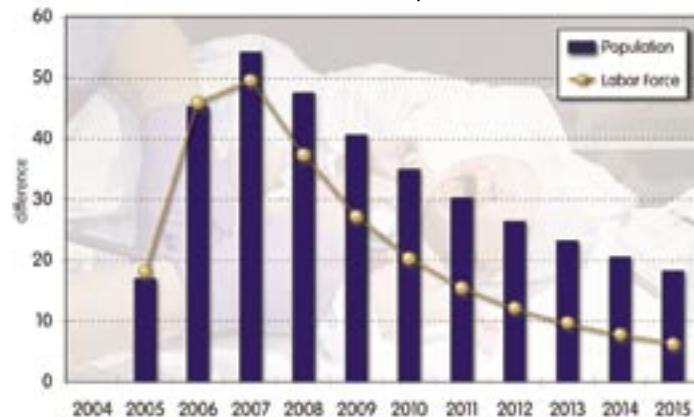


Hospital Construction Projects in New Hampshire

total employment rose by 130 workers. The following year the level shot up by 248, the next year, 2007, the increase was 140. Completion of the project is estimated to be within those two years. So, total employment is only 22 jobs above expected levels by 2008 before dropping off entirely.

The additional growth in the county's population and labor force in 2005 and 2006 were virtually equal. Population increased by 17 in 2005 and labor force by 18, the next year the additional growth was 45 and 46 respectively. In the initial years of the project, labor force growth barely nosed out population increases because of the draw to more work as a result of the project. However when the project is complete, the available services become the draw as more people move into the area. At that point, because population includes families and dependants, it increases at twice the level of the labor force.

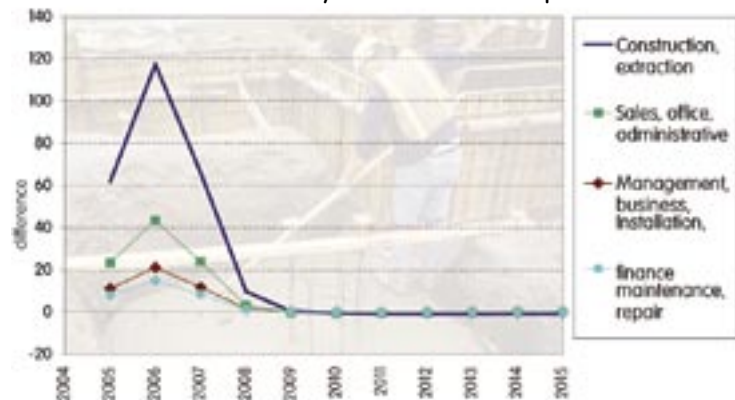
Merrimack County Difference in Labor Force and Population



Almost half of all additional workers in the county were in *construction and extraction* occupations. It can be presumed that these people were drawn to the county by the hospital expansion project. Employment expanded the first year by over 60 jobs, 115 in the second year, then 60 in 2007. Combined with the length of the project, the influence from this group will be short-lived and gone by completion in 2009.

Sales, office, and administrative jobs followed a similar cycle as they required more than 20 additional workers in 2005, 45 by 2006 and then 24 before dropping back down to normal levels. Additional professionals and finance people will also be necessary during the first years, as *management, business, and finance* occupations will increase an additional ten to twenty jobs, returning to normal levels by 2009. These extra people in the area cause greater demand for other occupations which is answered by temporary additional *Construction* jobs created in three areas: *installation, maintenance, and repair*;

Merrimack County Difference in Occupations



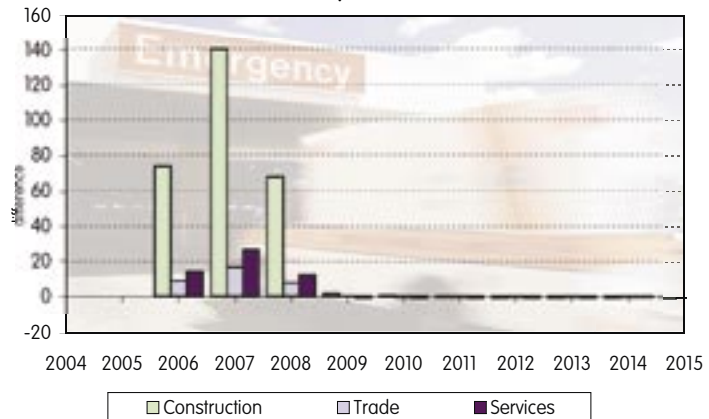
transportation and material moving; and food preparation and serving related occupations.

The changes in industry employment were also fleeting. The rise and fall of employment started in 2005 and was gone by 2009 in three industry sectors, *Construction, Trade, and Services.*

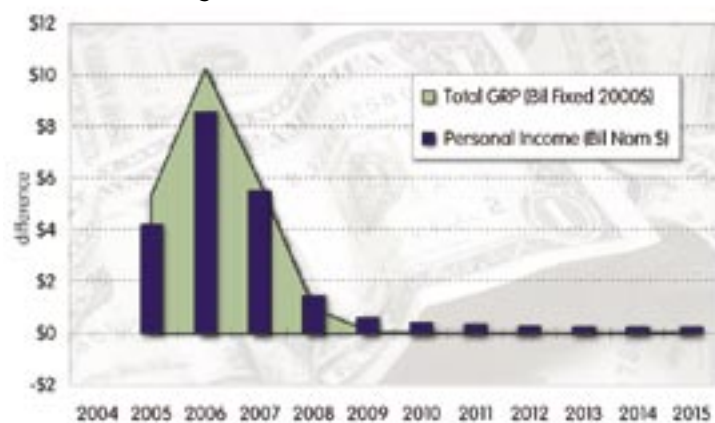
In 2005, the project contributed an additional \$5.4 million to the local economy. That amount almost doubles the second year, and falls back to within normal ranges by 2011. Personal income experiences similar fluctuations over the short time frame, increasing by \$4.2 million the first year, peaking in 2006 with an additional \$8.6 million, only to fall back within normal ranges by 2009.

Average annual wages can be considered the amount added to the local economy evaluated on a per worker basis. The average annual wages shifted slightly over the project period. The year the project started, 2005, average annual wages had a slight increase of \$5.29 and peaked the following year at \$12.15, when wages start to wane the following years to \$10 and \$4 before returning to normal levels. By 2011 the level of annual average wages fall below originally expected levels.

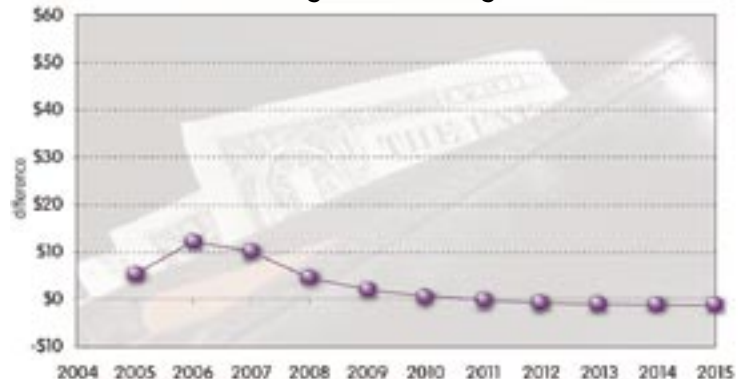
Merrimack County Difference in Industries



Merrimack County Difference in Gross Regional Product and Personal Income



Change in Merrimack County Average Annual Wages



Strafford County

Certificate of Need

Frisbie Memorial Hospital, Rochester

The only facility in Strafford County represented in this study is an 88-bed acute care community hospital founded in 1919.²² The hospital serves from Rochester and the greater Strafford County to Southern Maine areas. This hospital has the third lowest employment level in the study, but the value of its projects was the fourth highest. A Certificate of Need for the value of \$42.67 million was approved in April 2006. The application states that renovations are needed because of the age of the facility and the hospital service area's rapidly growing population.

The proposed project includes:

- 88,700 square feet of expansion and renovation of 22,600 square feet.
The expansion includes four goals:
 - increase in the number of available beds, with a large percentage of private rooms;
 - moving endoscopy and expanding it from two to four rooms;
 - expansion of cardiology as well as integrating related services including diabetes and nutrition, pulmonary lab, and the phlebotomy lab; and
 - improving the front entrance space for the public.

Planned renovations are aimed at creating direct access for walk-in emergency patients so they don't have to go through public areas; expanding and reconfiguring the pharmacy from 1,500 square feet to 2,900 square feet, and converting 12 double rooms to private rooms.

Total input for Strafford County

About \$2.5 million of the total Certificate of Need request is to acquire major medical equipment which will not create jobs or contribute significantly to the local economy of the county. The greater part remaining of \$40.2 million from the CON application was specifically for construction and renovation projects at the facility. Because Strafford County has a smaller concentration of the *Construction* industry, more than 40 percent of all construction costs paid are to companies from outside the county. So of the \$40.2 million appropriated for construction in this Frisbee Memorial Hospital's CON only \$23.45 million will stay in Strafford County to produce jobs and support the economy.

Impact of Hospital expansion on Strafford County

This project didn't begin until the second year into the study. In the first year of the project, 2006, for this county, the total employment level increased 100 jobs above expected levels. The following year, there were 191 additional jobs. The estimated completion date was in 2008, just two years after the project's start time, so most of the effects directly related to the project dissipate after that point. Total employment increases fell back to 93 additional jobs in

²² Frisbie Memorial Hospital, <www.frisbiehospital.com> , Accessed August 3, 2006

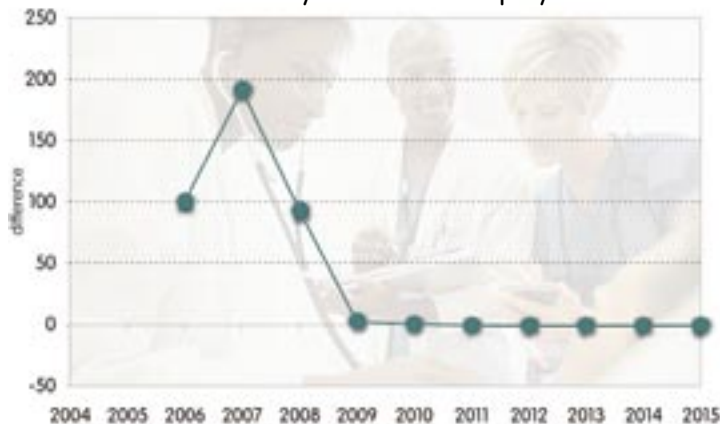
2008 then only two jobs different from original levels by 2009. After that point, there was less than a two-person variance from normal employment levels.

Even though a large portion of the construction costs are allocated to companies outside of the county, the *Construction* industry sector is the primary beneficiary of additional jobs created by the project, accountable for three-quarters of the increases during the three years of the project. The *Service* and *Trade* industries gained as a result of the *Construction* industry.

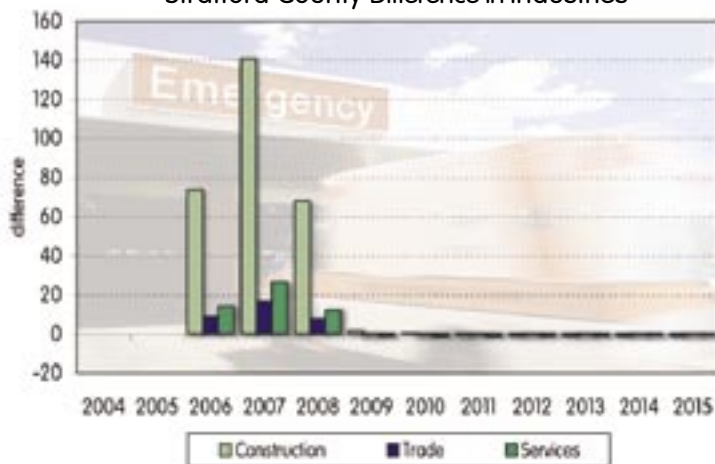
Construction and extraction occupations held almost half of the added positions during the three years of the project, adding 49, 94 and 46 jobs each of the respective years before returning to normal employment levels. As a result of the increase in *Construction*, other occupations increased, such as *sales, office and administrative* occupations, contributing just shy of 20 percent of the annual increases with 17, 32, and 15 jobs.

The project gave an immediate boost to the county's gross regional product (GRP), adding over \$3.4 million to the local economy in 2006. That level expanded to \$6.5 in 2007 and receded to \$3.1 the last year of the project. The GRP returned to within its normal level by 2009, and was projected to be about half a million dollars below

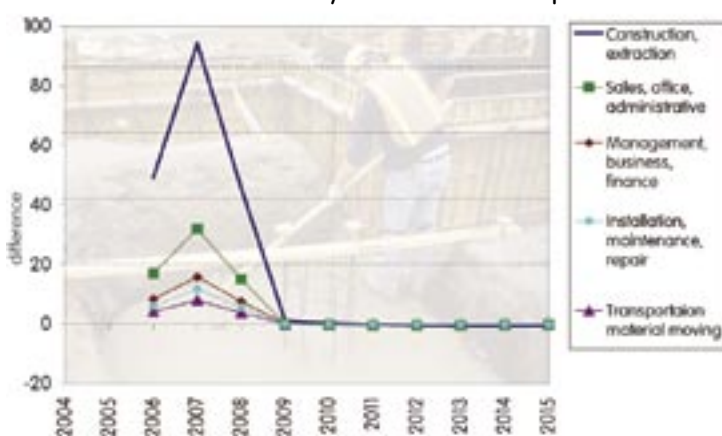
Strafford County Difference in Employment



Strafford County Difference in Industries



Strafford County Difference in Occupations



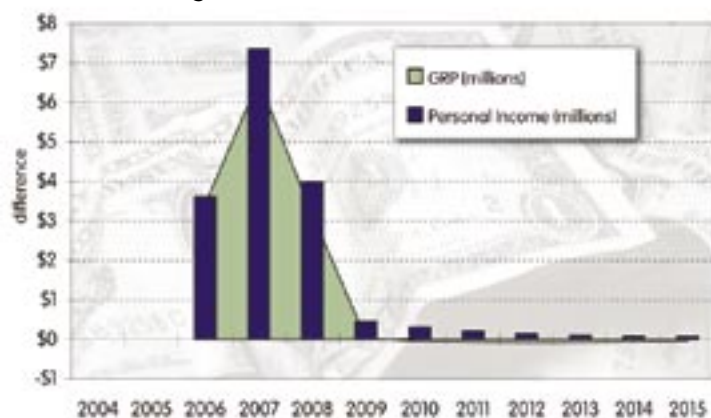
Hospital Construction Projects in New Hampshire

normal levels by the end of the study period in 2015. While following the same rise and fall pattern, personal income fared slightly better hitting higher levels, continuing to have a positive effect through the entire study period.

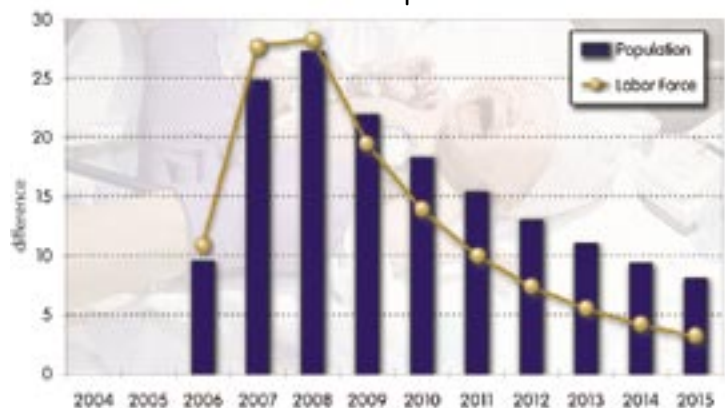
During the first years of this project, labor force and population both experience increases. As the project comes to a quick completion, and the fact that much of the construction costs go to firms outside the county, the effects on the labor force subside while population is higher because of families and dependants. The peak increase in the level of both the labor force and population varied from original expectations by fewer than thirty people.

There is a gradual increase in average annual wages in the county. The first year of the project, 2006, the wage level was \$4.44 above the normal amount. The peak came the following year at \$10.98 and this slid to \$9.19 above expected levels by 2008. The difference from the project was halved in 2010 to \$4.26 than halved again the next year to \$2.72. After that point the positive difference was measured in pennies until it fell slightly below original levels (still in penny measurements) in 2014 and 2015.

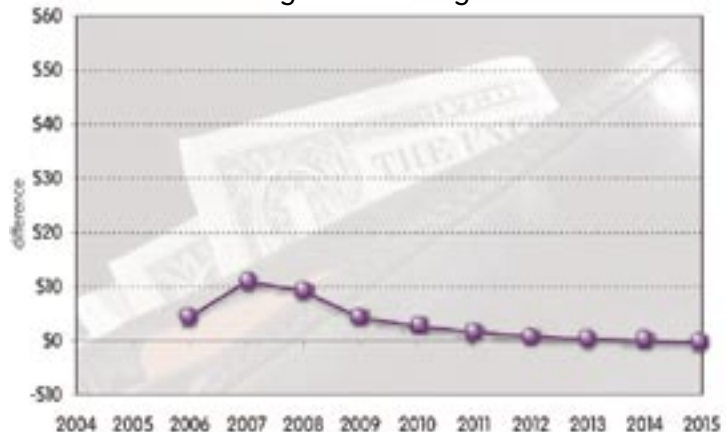
Strafford County Difference in Gross Regional Product and Personal Income



Strafford County Difference in Labor Force and Population



Change in Strafford County Average Annual Wages



Carroll County

Certificate of Need

Carroll County has the third smallest population among the counties in the state. The Memorial Hospital, in North Conway, is the second smallest unit among the ten hospitals included in this study, having barely 30 more employees than the smallest facility (Spear Memorial Hospital). The hospital submitted a Certificate of Need application for \$17.8 million. Just over half of that will be for renovation and the remainder is for new construction.

The goals of the project include:

- building a new medical/surgical wing with a 5-bed observation unit near the emergency department,
- relocating imaging into a single area, and
- enlarging many units within the facility.

There will also be significant upgrades to the sprinkler system and cooling apparatus.

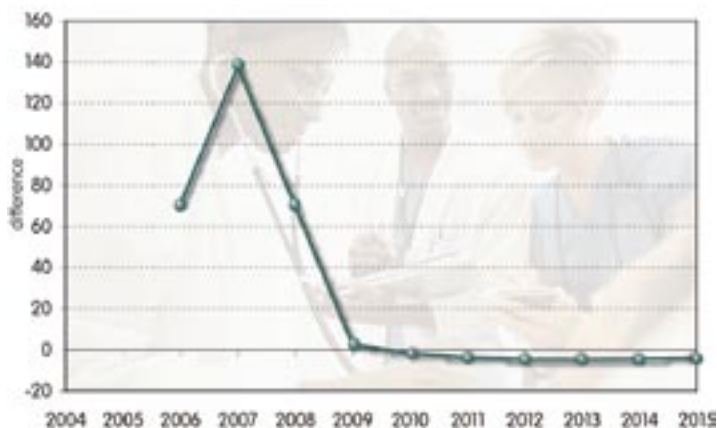
Total input for Carroll County

The renovations and new construction combine for a total of nearly \$17.0 million in construction expenses. In Carroll County, 56 percent of construction expenses paid typically stay within the county. Adjusting for this, \$9.6 million can be expected to remain in the county, contributing toward the local economy. Over \$800 thousand are earmarked for major movable equipment purchases. These purchases are taken into account as final demand expenditures which do little to create jobs in the county.

Impact of Hospital expansion on Carroll County

The project approval in March 2006 allowed for the project to begin in May 2006, with completion by June 2008. Total employment expanded by 71 additional workers in 2006 and almost doubled to 138 at the peak time of the project in 2007. By 2008, the project was winding down toward completion and employment started to follow suit and coming back to 70 jobs above expected levels in 2008. By the next year, benefits to the employment levels had all but vanished, with the level only 3 jobs ahead of the norm, before the levels dip below expected levels by up to 5 people between 2010 and 2015.

Carroll County Difference in Employment



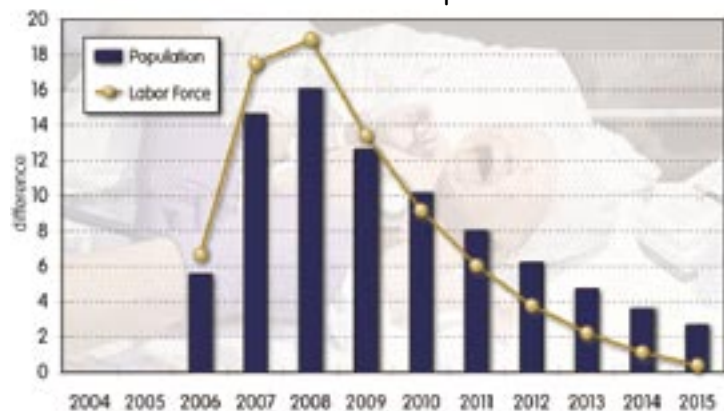
Hospital Construction Projects in New Hampshire

During the first four years of the project, 2006 through 2009, the project attracted more people to the county labor force as levels were upwards of 18 and 19 people. These levels did taper off after the project completed, but unlike the effects of some other county projects, Carroll County's labor force remains above original levels during the entire span of the study (through 2015). Population in the county follows a similar trend, although starting out more slowly and not declining as quickly.

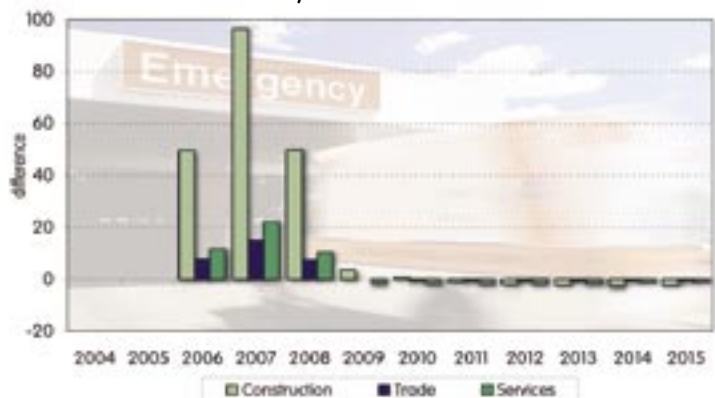
Fifty of the 71 jobs created by the project in 2006 were in the *Construction* industry sector. That represented 70 percent of the jobs. The share of additional *Construction* jobs created continued in 2007 and 2008, with the remainder of jobs being generated by *Trade* and *Services*. By the fourth year, additional *Construction* jobs drop to barely 4 jobs, but *Trade* and *Services* fall below original levels.

The majority of jobs supporting the *Construction* industry employment levels are in *construction and extraction* occupations, with the wave of jobs rolling in at 33 jobs in 2006, 65 jobs in 2007 and starting to roll out again with 33 jobs in 2008. These jobs drop to a single digit before falling below normal levels by 2011. *Construction* work also supports *sales, office, and administration* occupations, whose levels increase by 13, 25 and 12 jobs above original levels during the first

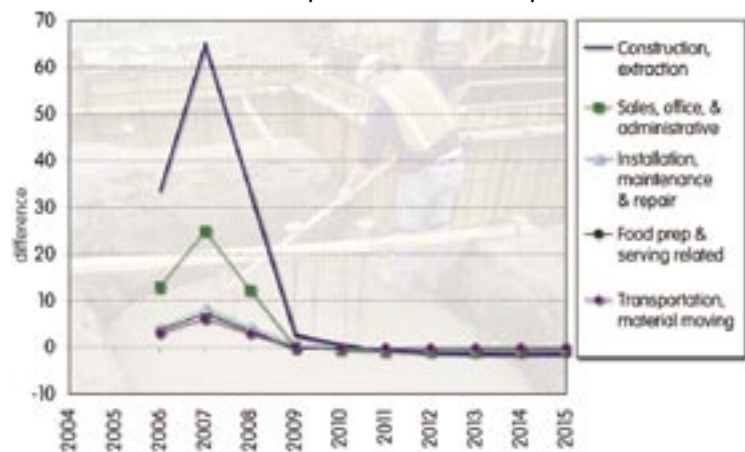
Carroll County Difference in Labor Force and Population



Carroll County Difference in Industries



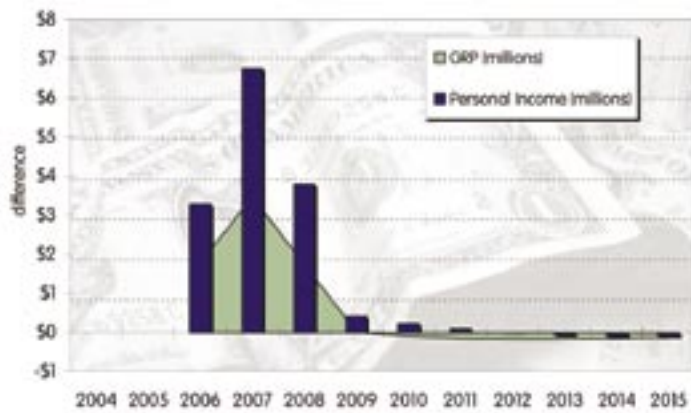
Carroll County Difference in Occupations



three years of the project. Other occupations that benefit from the project include *installation, maintenance and repair* occupations, *food preparation and serving related* occupations, and *transportation and material moving* occupations.

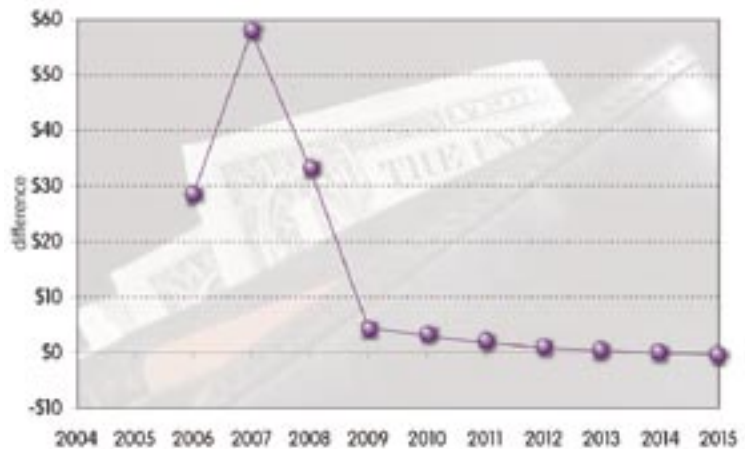
This project contributed an additional \$1.78 million to the gross regional product of the county during its first year (2006), the third year of the study. That nearly doubled in the next year to almost \$3.5 million. As the project approaches the completion phase those contributions start to decline in 2008 to \$1.7 million. Personal income followed the same pattern, at almost double the value. In 2006, personal income was \$3.3 million above normal levels, that increased the second year of the project to an additional \$6.8 million. The third year signaled the culmination of the project as personal income levels find their levels \$3.8 million above normal, and continue to fall back in the following years. Between 2012 and 2015, personal income levels in the county will be slightly below levels that had been projected if the project had not been done.

Carroll County Difference in Gross Regional Product and Personal Income



The consequential years of the project on average annual wages in Carroll County are 2006, 2007, and 2008. These added \$28, \$58, and \$33 in each of the respective years. At that point, the difference in average annual wages drops to less than \$5 for the next seven years. Part of the reason that average annual wages in Carroll County did not feel the same pressure from competition as Hillsborough County, is because only slightly more than half of the money spent actually stays in the county, compared to more than 83 percent in Hillsborough County.

Change in Carroll County Average Annual Wages



Rockingham County

Certificate of Need

Rockingham County, the second most populous county in the state, is the location of the final two acute care facilities included in the study: Parkland Medical Center in Derry, and Exeter Hospital in Exeter.

Parkland Medical Center, Derry

Parkland Medical Center submitted a Certificate of Need application for \$18.9 million with the main focus of the project being:

- enlargement of the emergency department and
- replacement of the equipment in the hospital's power plant.

It also included:

- expanding and/or renovating the surgical suite (upgrading four operating rooms and rebuilding another),
- upgrading central sterile unit, and
- creating a new lobby entrance.

A *Change of Scope* was submitted to cover expenses not covered because of inflation as well as moving the endoscopy department back into the main hospital, which was later removed from the CON because of a subsequent request from an affiliate hospital facility in Derry. This resulted in reducing the amount of the approved CON by \$1.9 million in construction costs and \$332,329 in equipment costs, for a total reduction of \$2.3 million. The revised total cost of the project (including a second *Change of Scope* for only construction costs in June 2005) was \$15.7 million.

Exeter Hospital

Exeter Hospital had several steps in its Certificate of Need process. Their first CON application was for \$30.7 million to construct a new medical office building, and resolve space shortages for ambulatory care.

Several *Changes of Scope* were filed:

- one to remove the ambulatory surgery unit, reducing costs by \$3.8 million, and
- one to change ownership of the facility.
- The next one added a 4th floor to the medical office building and added \$3.3 million, so the total project cost stood at \$30.37 million
- The most recent change in 2005 added \$21.2 million to the project costs,
 - improving sequencing of renovations for continuity of operations
 - providing additional space for growth.

The revised cost for the whole project was \$51.5 million, plus a variance of 15 percent to cover inflation.

Time for the initially approved application expired, so an additional CON needed to be submitted for an extra \$9.89 million to complete the project. That put the final cost of the project over \$61.5 million.²³

Total input for Rockingham County

Combining the Certificate of Need requests from the two facilities brought the total values of the CONs in Rockingham County to \$79.6 million. Of that, \$26.8 million worth of work had been completed during 2003.

This study is from 2004 forward so only the remaining \$52.8 million was used in this analysis.

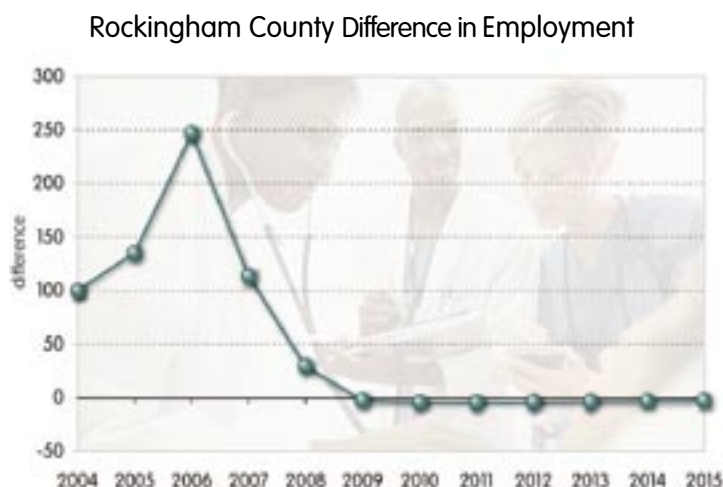
The combined equipment costs came to \$6.4 million. Of that, *Navigational, measuring, electromedical, and control instruments manufacturing* had \$2.6 million, and *Medical equipment manufacturing* had \$3.8 million. These purchases did not produce jobs for the local economy.

The remaining bulk of \$46.6 million was assigned for construction expenses. There is a strong presence of construction in Rockingham County with over 80 percent of construction payments remaining in the county. Based on this, an adjustment calculated that \$37.7 million stayed in the local economy.

Impact of Hospital expansion on Rockingham County

As mentioned earlier, a portion of the projects in this county had been completed prior to the beginning of this study. However, the time period for completing these projects extended beyond the two and three year time frames of many of the other areas. Total employment reflected this, picking up in 2004 at 100 jobs ahead of the normal level.

- The following year showed a continued increase of 135 jobs.
- In the third year, employment expanded 247 jobs above the normal levels.
- Then, the levels started to descend to 114 jobs above expected levels in 2007.
- The next year the difference in employment levels was an increase of barely 29.
- Finally, during the remaining years of the study it falls between 2 and 5 jobs below normal levels.



²³ At the time of this study, the Certificate of Need and Change of Scope requests for this project overran proposed expenses. Figures used in the study were from the periodically submitted Implementation Reports which stated actual expenses. Therefore, Rockingham total amounts may vary.

Hospital Construction Projects in New Hampshire

These projects contributed an additional \$4.1 million to the county's economy in 2004. That grew to \$5.6 million and \$10.4 million in the following years of the study. As project completion neared, the additional money added to the economy started to decline to an extra \$4.8 million in 2007 and only \$1.1 million in 2008. Finally, the positive contributions cease leaving a slight reduction in the expected GRP levels in the county.

Personal income also experienced increases above the normal levels.

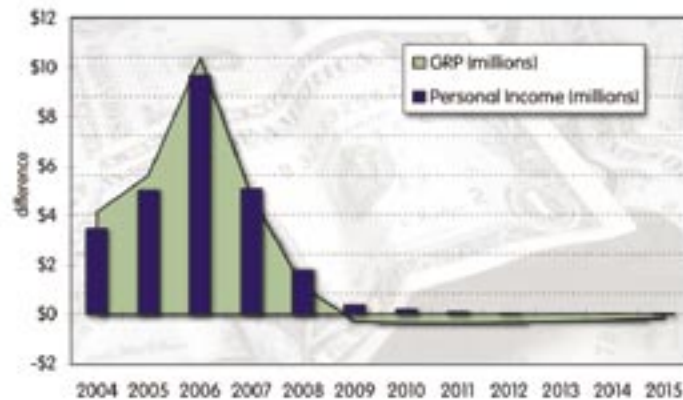
- The first year it grew by \$3.5 million, and
- the level expanded further the next year to \$5.0 million above normal.
- The third year (2006), the additional personal income rose to \$9.7 million.
- By 2007, as the projects conclude, personal income was \$5.1 million above expected levels and then \$1.8 million the next year.

During the remaining years, personal income remained slightly higher than expected.

Average annual income barely changed as a result of the projects being completed. The differences from expected levels range from an inconsiderable \$2.67 to a reduction of only \$0.34.

The industry primarily affected by the projects was *Construction*. The first year, it gets 67 additional workers, then 91 and 165 in the following two years. The industry starts to return to normal employment levels as the project

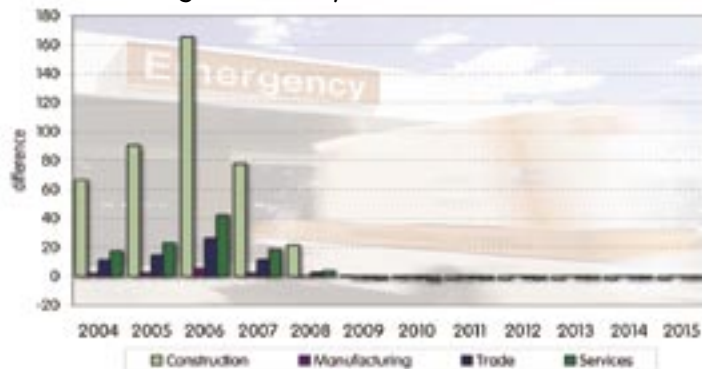
Rockingham County Difference in Gross Regional Product and Personal Income



Change in Rockingham County Average Annual Wages



Rockingham County Difference in Industries

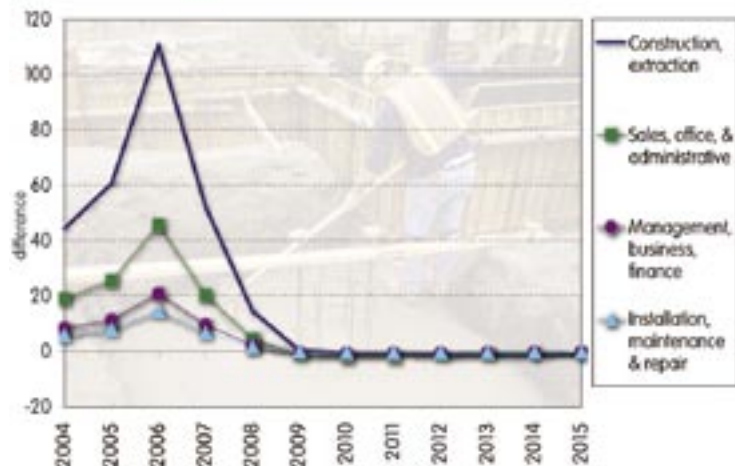


approaches completion and the surplus worker levels decline to 70 and 22 workers in the final years. The *Services* industry also grew to help support the demand created by the increase of *Construction* jobs. *Services* employment levels peaked at an increase of 42 jobs in the third year. The economic ripple of the project extends to *Trade* which sees additional growth from 11 to 26 jobs during the construction period.

Construction and extraction occupations made up between 45 and 50 percent of the additional jobs in the timeframe of the project. This represented anywhere from 15 to 111 workers at any point in time. *Sales* occupations were also created as a result of the project, comprising just under 20 percent or 5 to 46 of the added jobs. Jobs in *management, business, and financial* occupations also grew to help support the *construction and extraction* occupations, as did *installation, maintenance, and repair* occupations.

Like Hillsborough County, Rockingham County also experiences a lot of population growth, partly because of its prime seacoast properties and its location and proximity to Boston. The attraction of expanded construction jobs related to medical expansions which add to the population growth in the county. Between 2006 and 2009 population will see roughly 35 more new residents each year. The appeal of the area does not dissolve with the project's completion, as population will continue to remain above normal levels for the remaining years through 2015. The labor force will also expand in relation to the population increases.

Rockingham County Difference in Occupations



Rockingham County Difference in Labor Force and Population

